Math 171 B
Analytic Geometry and Calculus II
Spring 2016

Class Meeting: MWF 10:20 - 11:30 PPHAC Room 117

Instructor: Nathan Shank

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Office Location: PPHAC 219

Office Hours:

Text: *Calculus: Early Transcendentals, Single Variable* Jon Rogawski, 2012, Third Edition, W. H. Freeman and Company.

Course Goals: Upon successful completion of this course, a student will be able to use basic techniques of integration, will have a deeper insight into the power of calculus as a tool for modeling some real world situations, be able to work algebraically and analytically with infinite sequences and series, and will have basic expertise in the use of the computer program *Maple*.

Course Topics: The topics to be covered are:

- Review of the definite integral and Fundamental Theorem of Calculus

- Applications of integration

- Techniques of integration

- Infinite sequences and series

- Introduction to differential equations

We will briefly review chapter 5 and cover most sections of chapters 6-10.

Assignments/Assessment:

- Homework: As you know math is not a spectator sport. You need to practice what you learn. Homework will be assigned daily and it will be collected at the

beginning of class. Two problems will be chosen from each section to be turned in as a grade. These homework problems must be done individually. If two or more graded homework sets look similar, no points will be awarded for the entire homework set (with no warning). Ungraded homework will also be assigned and students are encouraged work on these problems together. However acquiring an entire solution from a classmate in not acceptable. Please see the section on academic honesty policy for more information. You are always welcome to come to office hours to see the instructor. Homework not turned in at the beginning of class is considered late. Late homework will not be accepted for a grade.

- Outlines: You will also be required to complete a 1 page outline of several section of the textbook. In order to cover material in the class you will need to pre-read sections so that we can spend more time focused on problems and comprehension. Outlines will be collected at the beginning of each class.

- Computer Program and Calculators: Some class time will be devoted to computer activities using the program Maple. Most of these activities as well as occasional assignments that use Maple will be collected and graded. In addition, students are expected to bring a graphing calculator to class. Graphing calculators will be used frequently in class to illustrate concepts and to solve problems. There will be some activities and quizzes that will be "no technology". (You will be told in advance when a quiz will be '"no technology".) Unless otherwise directed, you are encouraged to use Maple and/or a graphing calculator as a resource for homework as long as it is used as an appropriate tool.

- Tests: You will have **three** tests and a cumulative final exam. The tests are tentatively scheduled for Friday, February 19, Wednesday, March 23, and Wednesday April 27. The final exam is schedule for Wednesday, May 4 at 11:30.

Grading: You are responsible to keep track of your own grade. Grades will be computed as follows:

Homework and Outlines	35%
Test	10% Each
Maple Project	15%
Final Exam	20%

Class Structure: Class will consist of lecture, group work, individual work, and problem sessions. Please come to class prepared with you text, notes, and calculator everyday. Please be prepared to participate in class. Class will start promptly at the

start time, and class will not end early. Please turn off your cell phones prior to the start of class.

Attendance: Attendance will be taken everyday. There is a very strong correlation between attendance and grades. In order to understand the material, you need to be present in class. Group work also requires every ones participation. I understand that there are circumstances that you must miss class so the lowest homework grade will be dropped when computing the final grade. Remember that no late homework is accepted.

Academic Honesty: For graded homework assignments and projects, you may use your class notes and any books or library sources except a solutions manual. Any resources you use must be documented at the top of the homework assignment. As an example if you get help from the Tutor Center for problem 4 only, please write "Help with problem 4 from Tutor Center". No points will be deducted for honestly acknowledging help. However if you do not document any appropriate resource this is considered cheating.

The College academic honesty policy appears in your Student Handbook; you are expected to be familiar with it. The Academic Honesty Policy Guidelines specific to mathematics classes are reiterated at the end of the syllabus. They apply to work done outside of class as well as to in-class quizzes and tests. Please read them carefully. If you are unsure about the propriety of a particular procedure or approach, please consult with your instructor before continuing with the assignment.

Special Accommodations: Students who wish to request accommodations in this class for a disability should contact the Academic Support Center, located in the lower level of Monocacy Hall, or by calling 610-861-1401. Accommodations cannot be provided until authorization is received from the Academic Support Center.

Extra Help: Your first resources for extra help should be office hours and your fellow classmates. Beginning the second week of class, the Mathematics and Computer Science Department offers tutoring Monday through Thursday 5:30-8:30pm in PPHAC 238. This is free drop-in tutoring and does not require an appointment. The Academic Support Center houses Disability Support and Greyhound Tutoring on the first floor of Monocacy Hall and can be reached at 610-861-1401. Greyhound Tutoring provides course-specific tutors to Moravian students, free of charge. If you would like to work with a Greyhound Tutor to boost your academic success, please request a tutor through http://bit.ly/NeedTutorMC (case-sensitive). Plan ahead! It takes 2-3 business days to connect you with a tutor. You must first make use of office hours and the drop in tutoring in order to receive a one-on-one tutoring.

Academic Honesty Policy Guidelines

Mathematics Courses

The Department of Mathematics and Computer Science supports and is governed by the Academic Honesty Policy of Moravian College as stated in the Moravian College Students Handbook. The following statements will help clarify the policies of members of the Mathematics faculty.

In all homework assignments which are to be graded, you may use your class notes and any books or library sources. When you use the ideas or thought of others, however, you must acknowledge the source. For graded homework assignments, you may not use a solution manual or the help, orally or in written form, of an individual other than your instructor. If you receive help from anyone other than your instructor or if you fail to reference your sources you will be violating the Academic Honesty Policy of Moravian College. For homework which is not to be graded, if you choose, you may work with your fellow students. You are responsible for understanding and being able to explain the solution of all assigned problems, both graded and ungraded.

All in-class or take home tests and quizzes are to be completed by you alone without the aid of books, study sheets or formula sheets unless specifically allowed by your instructor for a particular test.